REMARKS

Claims 1 and 4-7 were pending and under consideration.

In the Office Action, the claims were rejected as were rejected under 35 USC 103 as obvious in view of Takai (USP 4770924) and Saito et al. (JP 2002-025033 or US Pub. 2002/0018918); and as obvious in view of Takai, Saito et al., Arisaka et al. (US Pub 2003/0054202) and/or Nochi et al (JP 57-018025). The claims were also rejected under 35 USC 112.

In response, claim 1 has been amended by incorporating therein subject matter from dependent claim 4, and claims 4 and 6 have been cancelled. No new matter has been added. The rejections are traversed.

Regarding the rejection under 35 USC 112, the examiners' suggested claim language has been adopted. Accordingly, it is submitted that this rejection is now moot.

Regarding the rejections of the claims under 35 USC 103, the rejections are traversed.

These rejections essentially are reinstatements of, or similar to, rejections in the Office Action of March 28, 2006 and September 8, 2006. The examiner continues to not address the main thrust of applicant's position against the proposed combination of Takai and Saito et al., namely, that the two relate to different fields of endeavor with different concerns so that the teachings of Saito et al. are not relevant to heat shrinkage and humidity ratios of magnetic tape.

Takai discloses a magnetic tape with a double-layered magnetic structure, but nowhere discloses or suggest a magnetic layer in the range from 10 nm to less than 50 nm. Takai's magnetic layers range from "about" 50 nm to 500 nm, preferably from 70 nm to 300 nm. See column 7, lines 22-25. This means that Takai teaches layers whose total thickness is expected to be much more than that claimed in the present application.

In the office action it is stated that because Takai mentions a thickness of "about" 50 nm that this thickness is within the claimed range. However, because it is clear that Takai contemplates much greater thicknesses, does not really teach or enable the thickness less than 50 nm.

As noted in the background section of the specification:

[0017] As a result of the studies made by the inventor of the present invention, however, it is found that the metal-evaporated tape is not still satisfactory in terms of form stability in the case where it is used as a conventional magnetic tape for computer data recording. For example, generally, a magnetic tape is likely to be extended in a longitudinal direction in its fabrication step while it is likely to gradually shrink during stock after the fabrication. Even in the case where the metal-evaporated tape is used for conventional computer data recording, a shrinkage ratio is relatively large. Therefore, if recording/reproduction is performed on/from this tape, it is found that tracking accuracy is lowered. Because of the thus lowered tracking accuracy, a reproduction output is likely to be lowered.

[0018] In the case where a fabricated metal-evaporated tape is stocked at a high humidity, it is found out that the tape absorbs moisture to be easily deformed. As a result, a reproduction output is also likely to be lowered as described above.

As also noted in the specification, Mr. Nagai has discovered that it is possible to make an evaporated metal recording tape with a heat-shrinkage ratio in the longitudinal direction and a width direction is defined to be 0.50% or less and a humidity expansion coefficient is defined to be 1×10^{-6} % RH or less after stock at 100°C. and 5% RH for 30 minutes, using the recited dimensions. Takai no where suggests a metal evaporated tape meeting this condition.

Saito et al. may disclose the desirability of controlling the heat-shrinkage ratio, but only in the context of a magnetic disk. Magnetic disks substrates have material properties that are much different that those of tape supports, and the manufacturing methods are much different too. The issues relevant to the one cannot simply be translated to the other. For example, a disk must be rigid whilst tape must be flexible, and these properties must be maintained under different conditions. Tape is designed to be stored in a coiled fashion, whilst disks may be stored in a stacked fashion. Thus, different substrate materials are used. Tape supports are much more susceptible to the shrinkage effects addressed by the present invention than are disk supports due to their finer dimensions..

And with specific reference to the claims, the claims call for a longitudinally extending non-magnetic support with a thickness of 4.0 μm to 10.0 μm so that the heat-shrinkage ratio and the humidity expansion coefficient satisfy the stated conditions. However, in Saito et al., the non-

magnetic support does not extend longitudinally and must be 62 μm in order to provide sufficient rigidity, etc.

Because the teachings of magnetic disk manufacture are not relevant to magnetic tape manufacture, it is submitted that the proposed prior art combination is improper.

Even if the combination set forth in the rejection were proper, the recited tape thickness and magnetic layer thickness ratios would not be achieved without hindsight reasoning provided by the present application.

Regarding the rejection under 35 USC 103 including Arisaka, et al and/or Nochi, et al., this rejection is traversed for the same reasons. This rejection improperly relies on the Saito, et al. magnetic disk art which is not relevant to the present invention as just noted. Moreover, it is only with hindsight from the present application that the Saito, et al art has been considered relevant in the office action.

Accordingly it is submitted that Takai and Saito et al. cannot be combined as proffered, and in any event, do not fairly result in or suggest the presently claimed subject matter. Further, neither Arisaka, et al., nor Nochi, et al. provides the missing disclosure. Therefore, the rejections under 35 USC 103 should be withdrawn Notice to that effect is requested.

Respectfully submitted,

Dated: December 3, 2007

By: /David R. Metzger/

David R. Metzger (Reg. No 32,919)
SONNENSCHEIN NATH & ROSENTHAL
P.O. Box 061080
Wacker Drive Station - Sears Tower
Chicago, Illinois 60606-1080
Phone: (312) 876-8000